

Electronic Supplementary Information

Single-crystalline $\text{ZnSn}(\text{OH})_6$ hollow cubes via self-templated synthesis at room temperature and their photocatalytic properties

Linlin Wang, Kaibin Tang,* Zhongping Liu, Dake Wang, Jie Sheng and Wei Cheng

Division of Nanomaterials and Chemistry Hefei National Laboratory for Physical

Sciences at the Microscale. Department of Chemistry, University of Science and

Technology of China, Hefei 230026, P.R. China. E-mail: kbtang@ustc.edu.cn. Phone:

86-551-3601791.

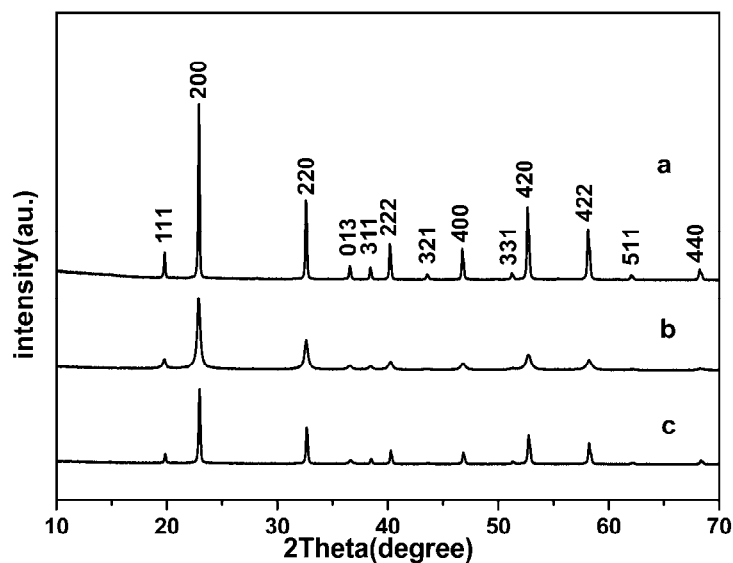


Figure S1. The XRD patterns of the three samples obtained with different amounts of NaOH added in first step without the second step. (a) 10.2 mmol; (b) 13.0 mmol; (c) 22.0 mmol.

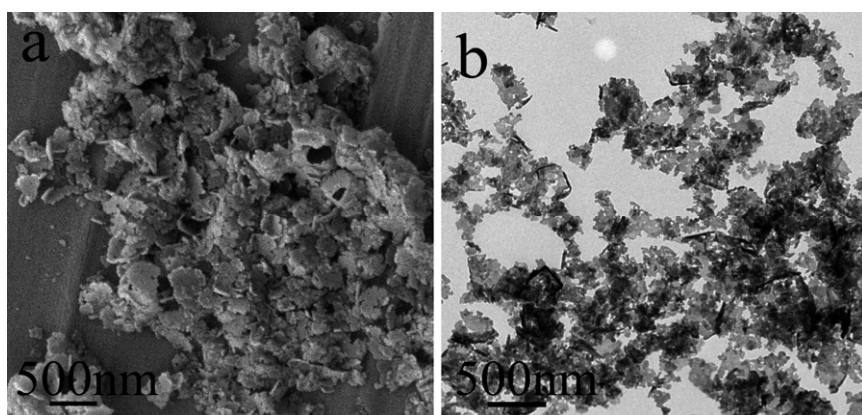


Figure S2. SEM and TEM images of the hollow ZHS cubes obtained with NaOH amount 25 mL: (a) SEM image; (b) TEM image.

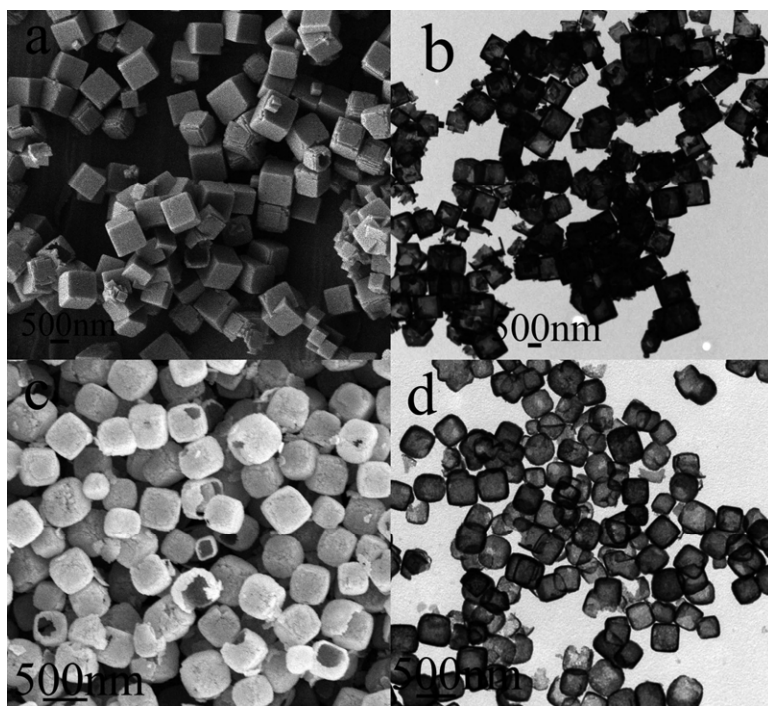


Figure S3. SEM and TEM images of the hollow ZHS cubes synthesized with different amount of $C_6H_8O_7 \cdot H_2O$: (a),(b) SEM image and TEM image without $C_6H_8O_7 \cdot H_2O$; (c), (d) SEM image and TEM image with 2 mmol $C_6H_8O_7 \cdot H_2O$.

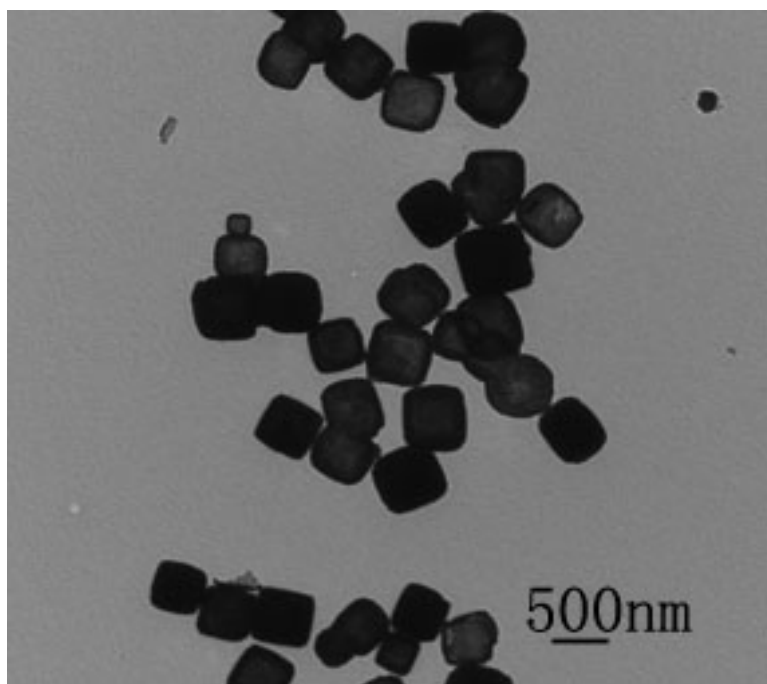


Figure S4. TEM image of the ZHS cubes synthesized with adding NaOH (2.0 M, 20 mL) after stirring for 3 days.